

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

MARILYN F. QUIRIN, Special
Representative of the Estate of
RONALD J. QUIRIN, Deceased,

Plaintiff,

V.

CRANE CO., et al.

Defendants.

Civil Action No. 13-CV-2633

**DEFENDANTS LORILLARD TOBACCO COMPANY AND
HOLLINGSWORTH & VOSE COMPANY'S MEMORANDUM OF LAW
IN SUPPORT OF THEIR MOTION TO EXCLUDE THE KENT CIGARETTE-
SPECIFIC CAUSATION TESTIMONY OF DR. CARL A. BRODKIN**

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Defendants Lorillard Tobacco Company (“Lorillard”) and Hollingsworth & Vose (“H&V”), for their Memorandum of Law in support of their Motion to Exclude the Kent Cigarette-Specific Causation Testimony of Dr. Carl A. Brodtkin, and state as follows:

Plaintiff should be precluded from introducing evidence or testimony through Dr. Brodtkin, her expert in occupational medicine, that original Kent cigarettes with the asbestos-containing filter caused Plaintiff’s decedent Ronald J. Quirin’s mesothelioma. Dr. Brodtkin cannot say one way or the other whether Mr. Quirin’s alleged use of original Kent cigarettes was sufficient to cause his mesothelioma. He has also opined that if Mr. Quirin did not use original Kent cigarettes, Mr. Quirin’s other exposures to asbestos *were* sufficient to cause his mesothelioma. This level of uncertainty is unacceptable for expert testimony under Federal Rule of Evidence 702, and it fails to meet the standards set forth in *Daubert*. Furthermore, Dr. Brodtkin’s opinion on this causation issue lacks a scientific basis and is nothing more than conjecture and speculation. His testimony not only fails to meet the standard for admissibility of expert opinion, but it also should be excluded because it does not meet the standard for causation in asbestos cases established by the Supreme Court of Illinois in *Thacker* and *Nolan*.

I. SUMMARY OF THE ARGUMENT

It is Plaintiff’s burden to prove the essential element of causation. In this case, however, Plaintiff lacks admissible evidence that the asbestos-containing filter used in the manufacture of Lorillard’s Kent cigarettes in the 1950s was both a legal cause and cause in fact of Mr. Quirin’s injuries. Plaintiff’s designated medical causation expert, Carl Andrew Brodtkin, M.D., has already testified that he “can’t say one way or the other” whether the original Kent cigarettes that Mr. Quirin allegedly smoked in the 1950s were sufficient to cause his mesothelioma. He has also testified that if Mr. Quirin had *not* smoked original Kent cigarettes, his occupational exposure to asbestos *alone* was sufficient to cause his mesothelioma. Furthermore, Dr. Brodtkin

does not know what dose of asbestos Mr. Quirin may have received from his alleged use of original Kent cigarettes, or whether that dose was in and of itself sufficient to cause Mr. Quirin's mesothelioma. In addition, Dr. Brodtkin cannot cite a single peer-reviewed study to support his Kent-specific causation opinion.

Dr. Brodtkin's causation opinion as to the Kent filter cigarettes that Mr. Quirin allegedly smoked is lacking on all fronts: (1) it does not meet the requirements of Federal Rule of Evidence 702; *i.e.*, it is not supported by sufficient facts or data, it is not the product of reliable principles and methods, and Dr. Brodtkin has not applied any such principles or methods to the facts of this case; (2) the reasoning or methodology underlying Dr. Brodtkin's Kent-specific causation opinion is not scientifically valid, as required by *Daubert*;¹ and (3) Dr. Brodtkin's opinion fails to provide sufficient evidence for a jury to reasonably find that original Kent filter cigarettes caused Mr. Quirin's mesothelioma and, thus, Plaintiff cannot meet the test for causation in asbestos cases under Illinois law, as set forth in *Thacker*² and *Nolan*.³

II. STATEMENT OF FACTS

From March 1952 until May 1956, Lorillard's predecessor, P. Lorillard Company, manufactured Kent cigarettes with a patented filter that contained asbestos as one of its components ("original Kent"). *See* Defendant Lorillard Tobacco Company's Response to Plaintiffs' General Issues Interrogatories, No. 11 (attached as Exhibit A). The asbestos-containing filter material was manufactured by a former subsidiary of H&V, H&V Specialties

¹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993)

² *Thacker v. UNR Industries, Inc.*, 151 Ill. 2d 343, 603 N.E.2d 449 (1992).

³ *Nolan v. Weil-McLain*, 233 Ill. 2d 416, 910 N.E.2d 549 (2009).

Co., Inc. *Id.* The bulk filter media was shipped from Massachusetts to P. Lorillard's facilities in New Jersey and/or Kentucky, where it was turned into filter rods and attached to the tobacco rods to create filtered cigarettes. After May 1956, Kent cigarettes were no longer manufactured with an asbestos-containing filter. *Id.*

Plaintiff alleges that Mr. Quirin began smoking Kent cigarettes in approximately 1954, after he joined the United States Navy and after Mr. Quirin began serving aboard the *USS Tolovana*. See Plaintiff's Fifth Amended Complaint, ¶ 13. Plaintiff claims that Mr. Quirin smoked Kent throughout his remaining service in the Navy and for a short time after his discharge. *Id.* Mr. Quirin was discharged from the Navy in August 1957. See Videotaped Evidence Deposition of Ronald J. Quirin, July 16, 2012, 44:8-11 (relevant portions attached as Exhibit B). According to Mr. Quirin's deposition testimony, he could not remember the specific month or year he began smoking Kent cigarettes; it could have been 1954, 1955 or 1956. See Ex. B at 161:14-162:15. He also testified he smoked "possibly a pack every three days" or about five to seven cigarettes per day. See Discovery Deposition of Ronald Joseph Quirin, June 26, 2012, 126:17-127:4; 213:12-20 (relevant portions attached as Exhibit C).

Original Kent cigarettes are not the only source of Mr. Quirin's alleged exposure to asbestos.⁴ See generally Plaintiffs' Second Amended Complaint and Plaintiff's Fifth Amended Complaint. Mr. Quirin was exposed to and inhaled asbestos fibers while serving in the Navy as a machinist's mate, fireman, and machinist's mate third class. See Plaintiff's Second Amended Complaint at ¶¶ 22, 23. He replaced insulation on the *Tolovana* (a steam-powered tanker ship built during WWII), replaced packing on deck wenches, and worked on steam pipes, valves, and

⁴ For purposes of this motion only, Lorillard accepts Mr. Quirin's testimony about his alleged smoking history. Lorillard does not concede, however, that Mr. Quirin actually smoked original Kent cigarettes as Plaintiff claims.

gaskets on various parts of the ship. *Id.* Following his Navy service, Mr. Quirin worked as an installer for Illinois Bell from 1957 to 1966. *See id.* at ¶¶ 25-29. He was promoted to supervisor in 1966 and held this position until 1986. *Id.* As an installer, Mr. Quirin was exposed to asbestos-containing construction materials while installing phone systems in commercial buildings. *Id.* As a supervisor, Mr. Quirin was present at phone installations at various job sites where he worked around electricians, drywallers, and plumbers. *Id.*

The only proof of the requisite element of causation attempting to link Mr. Quirin's injuries to original Kent cigarettes is the testimony of Dr. Brodtkin. Dr. Brodtkin believes that in order to find causation in a mesothelioma case, there must be "well-characterized identified exposures [to asbestos] from the occupational and environmental history," and he also believes that there is a level of asbestos exposure, such as exposures to background "ambient airborne concentrations that are not associated with significant risk for asbestos-related disease." *See* Deposition of Carl Brodtkin, M.D., *Buck v. 3M Company, et al.*, Case No. 56-2012-0427135-CU-AS, Superior Court of California, Ventura County, May 21, 2013, 59:4-60:1 (relevant portions attached as Exhibit D). Dr. Brodtkin has also stated, however, that there is no clear threshold "above which I or others can say there's increased risk [or] below which there isn't increased risk." *Id.* at 63:16-64:14.

In the instant case, Dr. Brodtkin is of the conclusory opinion that Mr. Quirin's exposure to asbestos from smoking original Kents between 1954 and 1956, as alleged by Plaintiff, was a "significant exposure" that increased Mr. Quirin's risk of mesothelioma. *See* Deposition of Carl A. Brodtkin, MD, *Quirin v. Crane Co., et al.*, December 17, 2012, 239:13-240:10 (relevant portions attached as Exhibit E). But Dr. Brodtkin also testified that you cannot take one alleged exposure and say that it caused Mr. Quirin's disease, because "[m]esothelioma is a dose response

disease,” and “it’s the aggregate of his exposure in the environmental as well as the occupational setting that resulted in his total risk and caused his mesothelioma.” *Id.* When asked if Mr. Quirin’s alleged use of Kent cigarettes alone was sufficient to cause his mesothelioma, however, Dr. Brodtkin could not say “one way or the other.” *Id.* at 239:18-22. That is insufficient to meet the legal standard here.

III. ARGUMENT

A. This Court’s Gatekeeper Role Mandates the Exclusion of Speculative or Unsupported Assumptions or Opinions.

Admissibility of expert opinion is governed by Federal Rule of Evidence 702, which provides as follows:

A witness who is qualified as an expert by knowledge, skill, experience, training or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based upon sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the United States Supreme Court held that Rule 702 established the trial court’s “gatekeeping function,” which requires a court to ensure that: (1) the evidence or testimony is relevant, i.e., there is a proper “fit” between the testimony and the issue to be resolved at trial; and (2) “the reasoning or methodology underlying [an expert’s] testimony is scientifically valid.” *Daubert*, 509 U.S. at 591-93. Principally, expert testimony must be reliable. *Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999).

In order to prevent unreliable opinions from confusing the jury, the trial judge must act as a “gatekeeper” and undertake a “preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or

methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 593-94. This requirement applies to all expert opinion testimony, not just scientific testimony. *Kumho*, 526 U.S. at 147; *see also Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) (holding that an opinion from an expert who is not a scientist should receive the same degree of scrutiny for reliability as an opinion from an expert who purports to be a scientist). Expert testimony is inadmissible when “there is simply too great an analytical gap between the data and the opinion offered.” *General Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997). Therefore, “when an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 **mandate** the exclusion of that unreliable opinion testimony.” *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 266 (2d Cir. 2002) (emphasis added); *see also Bourelle v. Crown Equip. Corp.*, 220 F.3d 532, 539 (7th Cir. 2000) (“Many times we have emphasized that experts’ work is admissible only to the extent it is reasoned, used the methods of the discipline, and is founded on data.”).

Dr. Brodkin’s ultimate opinion that possibly smoking approximately five to seven original Kent cigarettes per day for two years or less was one of many substantial factors in causing Mr. Quirin’s mesothelioma is based on a lack of science to *disprove* the role of Kent filter cigarettes in the causation of Mr. Quirin’s disease. Thus, Dr. Brodkin cannot bridge the “analytical gap” required to present admissible expert opinion. Plaintiff, as the proponent of her expert’s evidence, bears the burden of **proving** by a preponderance of the evidence that Dr. Brodkin’s testimony meets the standards of admissibility for expert testimony, including relevance, reliability, and helpfulness to the trier of fact. Fed. R. Evid. 104(a); *Daubert*, 509 U.S. at 592-93. The issue is whether the testimony “rests on reliable foundation and is relevant

to the task at hand.” *Daubert*, 509 U.S. at 597. Reliable testimony is more than “subjective belief or unsupported speculation.” *Id.* at 590.

Where the basis for an expert’s scientific opinion is nothing more than anecdotal or based upon a mere “hunch,” the opinion is not based upon reliable information. *See, e.g., Bradley v. Brown*, 42 F.3d 434, 438 (7th Cir. 1994) (stating opinions as to whether exposure to pesticides caused plaintiffs’ symptoms “would be entirely too subjective and speculative” to be “capable of assisting a fact finder”); *Wintz v. Northrop Corp.*, 110 F.3d 508, 512 (7th Cir. 1997) (district court must rule out “subjective belief or unsupported speculation”). “Trained experts commonly extrapolate from existing data.” *Joiner*, 522 U.S. at 146 (1997). “But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert.” *Id.*

The word “knowledge” connotes more than subjective belief or unsupported speculation Proposed testimony must be supported by appropriate validation - - i.e., “good grounds,” based on what is known. In short, the requirement that an expert’s testimony pertain to “scientific knowledge” establishes a standard of evidentiary reliability.

Daubert, 509 U.S. at 590. “Talking off the cuff -- deploying neither data nor analysis -- is not acceptable methodology.” *Bourelle*, 220 F.3d at 539.

Federal Rule of Evidence 702 provides the opportunity for the Court to enforce its role as gatekeeper by excluding unreliable expert testimony. *See Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011). Indeed, “district court judges have significant responsibility in determining whether expert testimony is relevant and helpful.” *Bradley v. Brown*, 42 F.3d at 437.

B. Dr. Brodkin's Opinion About Original Kent Filter Cigarettes Is Merely A Conjectural Assertion.

Dr. Brodkin claims to eschew the “every exposure” theory of causation in asbestos cases. *See* Ex. D at 59:4-18. There must be “well-characterized identified exposures from the occupational and environmental history,” he states. *Id.* To the extent Dr. Brodkin finds that smoking approximately five to seven original Kent cigarettes per day for perhaps two years is a “well-characterized and identified” exposure, he has absolutely no basis for doing so. In fact, Dr. Brodkin cannot say that the Kent cigarettes Mr. Quirin claimed to have smoked caused his disease. Dr. Brodkin made this clear at his deposition:

- Q. So is it your opinion that Mr. Quirin's alleged Kent cigarette smoking in and of itself would not have been sufficient to cause his mesothelioma?
- A. I can't say one way or the other. I don't think medical science has a way of addressing that question. . . .

See Ex. E, Brodkin Dep., at 239:18-22. Rather, Dr. Brodkin said this:

- A. . . . Mr. Quirin's exposure to asbestos smoking the Kent micronite filters between 1954 and 1956 in my opinion is a significant exposure. I've identified it as a component part of his exposure. That exposure is not as great as the cumulative exposure he had including all occupational exposures. So the exposure to Kent micronite did increase his mesothelioma [sic], but it's the aggregate of his exposure in the environmental as well as the occupational setting that resulted in his total risk and caused his mesothelioma. So I have no way of parsing out a single component, whether it be Kent micronite or some other component.

Id. at 239:23-240:10. Dr. Brodkin fails to explain *why* Mr. Quirin's exposure to asbestos from the Kent filter cigarettes he allegedly smoked was “significant.” Dr. Brodkin simply believes that original Kent cigarettes released some undefined amount of asbestos fibers when Mr. Quirin allegedly smoked them, and the amount, whatever it was, contributed to cause Mr. Quirin's mesothelioma, *but only if it is viewed in the aggregate along with all of Mr. Quirin's other exposures to asbestos*. In other words, every exposure counts.

C. Other Courts Have Excluded the “Every Exposure” Theory Under Daubert.

Recently, other Federal courts have addressed the “every exposure” theory under *Daubert* scrutiny and have struck such opinions. In *Smith v. Ford Motor Co., et al.*, Case No. 2:08-cv-630, D. Utah, January 18, 2013, for example, Dr. Samuel Hammar, another plaintiffs’ medical causation expert, sought to offer an opinion that claimed asbestos exposures traceable to defendant’s products necessarily constituted a substantial factor in causing plaintiff’s mesothelioma, because *every* exposure above background contributed to plaintiff’s illness. *Smith* Order, p. 3 (a copy of the *Smith* Order is attached hereto as Exhibit F). As set forth in the *Smith* Order, this opinion was further inadmissible under Federal Rule of Evidence 403 because “the every exposure theory as offered as a basis for legal liability is inadmissible speculation that is devoid of responsible scientific support.” *Id.* at p. 4. Further,

The every exposure theory does not hold up under careful examination. It is questionable whether it can even properly be called a theory, inasmuch as a theory is commonly described as a coherent collection of general propositions used to describe a conclusion, and while there are some general propositions used by [the proffered expert], they fall far short of supporting the legal liability he attempts to reach with them.

Id. at pp. 4-5. Indeed, the precise language in Dr. Brodtkin’s opinion is what Judge Benson excluded in *Smith*, i.e.,

[The proffering expert] seeks to base his causation opinion not on the thin reed that he cannot rule any exposure out, but on the opposite: he rules all exposures “in,” boldly stating that Mr. Smith’s mesothelioma “was caused by his total and cumulative exposure to asbestos, with all exposures and all products playing a contributing role.” This asks too much from too little evidence as far as the law is concerned. It seeks to avoid not only the rules of evidence but more importantly the burden of proof.

Smith Order, p. 5 (internal citation omitted.)

What is missing from Dr. Brodtkin’s opinion is what was missing from Dr. Hammar’s opinion in the *Smith* case -- “the necessary research and data to show that [plaintiff’s] alleged

exposures to asbestos based on [a finite number of exposures to a defendant's product] in the 1960s constitutes proof of sufficient exposure to cause [plaintiff's] cancer on its own ... or that such exposure amounted to more than an insignificant or de minimis factor in the development of the disease that afflicted [plaintiff] forty years after those exposures.” *Smith* Order, pp. 6-7.

Dr. Brodtkin claims that his “assessment is all from the occupational and environmental history. It’s a qualitative assessment of duration and certainly understanding the intensity of the exposure through the various studies I have cited, . . .” *See* Ex. E, Brodtkin Dep., at 225:8-14. Dr. Brodtkin concedes, however, that there is no epidemiological study upon which he relies for his opinion that original Kent cigarettes caused Mr. Quirin’s mesothelioma:

Q. So your reliance list that we talked about earlier does not contain a single peer-reviewed published article that reports on an epidemiological study of Kent asbestos-containing micronite filter smokers, correct?

A. I would say there isn’t a population epidemiologic study of Kent micronite smokers that I’m aware of that’s ever been done. I’m just not aware of that.

Id. at 222:10-16. Moreover, as Dr. Brodtkin also testified at his deposition, he cannot provide any information about the dose of asbestos to which he believes Mr. Quirin was exposed from smoking original Kent cigarettes. *Id.* at 229:1-14. Calculating dose is not what Dr. Brodtkin does, nor has he undertaken any such calculation in this case. *Id.* at 89:5-16. So Dr. Brodtkin cannot say that Kent cigarettes released asbestos in any specific amount or in a dose that was sufficient to cause Mr. Quirin’s disease. And he cannot say “one way or the other” whether Mr. Quirin’s alleged use of original Kent cigarettes would have been sufficient in and of itself to cause his mesothelioma. *Id.* at 238:18-22. Yet, Dr. Brodtkin can say that if Mr. Quirin **had not** smoked original Kent with the asbestos-containing filter, his occupational exposure **alone** would have been sufficient to cause his mesothelioma. *Id.* at 235:25-236:14. Thus, Dr. Brodtkin merely

assumes that every exposure Mr. Quirin experienced “in the environmental as well as the occupational setting [] resulted in his total risk and caused his mesothelioma.” *Id.* at 240:4-8.

Dr. Brodtkin’s opinion provides no proper or reliable basis for evaluating Mr. Quirin’s alleged exposure from smoking original Kent cigarettes, the dose of that exposure, or whether such a dose is associated with disease, and his opinion does nothing to help the trier of fact determine the all-important question of causation. Accordingly, with regard to the most basic purpose of Rule 702 -- that the expert’s opinion should be helpful to the jury -- Dr. Brodtkin’s opinion fails.

Other federal and state courts have come to a similar conclusion about expert testimony similar to Dr. Brodtkin’s in a host of other matters around the country, including many cited in the *Smith* Order, as well as the following:

- *Sclafani v. Air and Liquid Systems Corp., et al.*, No. 2:12-cv-3013-SVW-PJW (C.D. Cal. May 9, 2013) (“accepting [plaintiffs’ expert’s] opinion as true would render the “substantial factor” prong of the causation test meaningless. If “each and every exposure” is a substantial factor in leading to the development of mesothelioma, then all a plaintiff would have to do is prove (1) that he had mesothelioma; and (2) that he was exposed to asbestos at some time.”) (a copy of this opinion is attached hereto as Exhibit G).
- *Betz v. Pneumo Abex LLC*, 44 A.3d 27 (Pa. 2012) (holding that plaintiff’s expert opinion that each and every exposure to asbestos contributed substantially to the development of plaintiff’s asbestos-related disease was not supported by an accepted scientific methodology).
- *Butler v. Union Carbide Corp.*, 310 Ga. App. 21, 712 S.E.2d 537, 552 (2011) (the “any exposure theory is, at most, scientifically-grounded speculation: an untested and potentially untestable hypothesis”).
- *Lindstrom v. A-C Product Liab. Trust*, 424 F.3d 488, 493 (6th Cir. 2005) (“[The plaintiff’s expert] opines that there is no safe level of asbestos exposure, and that every exposure to asbestos, however slight, was a substantial factor in causing Lindstrom’s disease. If an opinion such as [the plaintiff’s expert’s] would be sufficient for plaintiff to meet his burden, the Sixth Circuit’s ‘substantial factor’ test would be meaningless.”)

Lorillard and H&V ask this Court to reach the same result as the cases cited above and exclude Dr. Brodtkin's purely speculative opinion that smoking a few Kent cigarettes per day over, at most, a two-year period was a substantial factor in causing Mr. Quirin's mesothelioma, or, in the alternative, to hold a preliminary hearing before allowing Dr. Brodtkin to offer such testimony.

D. Dr. Brodtkin's Opinion About Original Kent Filter Cigarettes Is Biologically and Scientifically Unsound.

As Dr. Brodtkin has testified, the experts cannot agree on a threshold level of asbestos exposure that causes mesothelioma, and no scientific studies have determined that level. Given that such a threshold exists, any asbestos exposure below that level does not increase the risk of developing mesothelioma. To avoid this scientific conundrum, plaintiffs' experts, including Dr. Brodtkin, disguise their unscientific opinions as representing a scientific assumption, and not a conclusion based upon a meaningful analysis, scientific method, or systematic inquiry. "Where the proffered expert offers nothing more than a 'bottom line' conclusion, he does not assist the trier of fact." *Clark v. Takata Corp.*, 192 F.3d 750, 759 (7th Cir. 1999).

Dr. Brodtkin has engaged in no meaningful analysis or inquiry to conclude that Mr. Quirin's alleged use of original Kent cigarettes was a substantial factor in causing Mr. Quirin's mesothelioma. In truth, Dr. Brodtkin simply cannot say whether Mr. Quirin's mesothelioma was caused by the approximately five to seven original Kent cigarettes per day that Mr. Quirin allegedly smoked sometime between 1954 and 1956. Rather, Dr. Brodtkin claims that all of Mr. Quirin's exposures are cumulative -- it is the "aggregate" of Mr. Quirin's exposure that caused the disease, and it is not possible to separate those exposures. That is like saying that since the entire bottle of aspirin ingested one afternoon caused serious injury, the two aspirin taken earlier that morning are just as much to blame for the injury. So when Dr. Brodtkin states that he cannot

rule out any asbestos exposure as a possible cause of an individual's mesothelioma, he is merely confirming the fact that there are insufficient facts and data to establish what minimum levels of asbestos are required to cause the disease.

Dr. Brodtkin readily agrees that mesothelioma is a dose-responsive disease. As he has explained, "it's the dose of asbestos that's important to my consideration in terms of, you know, the intensity and the duration qualitatively in the occupational and environmental history." *See* Ex. E, Brodtkin Dep., at 44:20-23. And there *is* a dose low enough that Dr. Brodtkin would not attribute causation to it. As he says, "certainly I would not attribute asbestos-related disease to ambient levels of asbestos exposure." *Id.* at 219:19-24. Yet, Dr. Brodtkin's opinion that possibly smoking approximately five to seven original Kent cigarettes per day was a significant exposure to asbestos completely disregards any dose-response relationship, as Dr. Brodtkin acknowledges. *Id.* at 229:1-14. Dr. Brodtkin merely assumes that all product exposures are equal, which is neither scientific nor logical, and as such, Dr. Brodtkin's opinion will provide no assistance to the trier of fact. *See Clark v. Takata Corp.*, 192 F.3d at 757 ("An expert must 'substantiate his opinion; providing only an ultimate conclusion with no analysis is meaningless.'"); *see also Meyers v. Nat'l R.R. Passenger Corp.*, 648 F. Supp. 2d 1032, 1043 (N.D. Ill. 2009) (excluding expert's opinions where they were "not sufficiently reliable since they lack an essential link between the conclusions that were reached and the methodology on which such conclusions were purportedly based"), *aff'd*, 619 F.3d 729 (7th Cir. 2010).

A recent opinion of the United States Court of Appeals for the Seventh Circuit illustrates the shortcomings of Dr. Brodtkin's testimony in this case. In *Schultz v. Akzo Nobel Paints, LLC*, No. 12-1902, 7th Cir., June 26, 2013,⁵ the court of appeals actually overturned the trial court's

⁵ A copy of the opinion is attached as Exhibit H.

exclusion of the plaintiff's expert's causation testimony. That case involved a painter, diagnosed with acute myeloid leukemia (AML), whose injuries were allegedly caused by exposure to benzene in the paints he used. The painter's quantitative exposure to benzene had been calculated utilizing an EPA-endorsed methodology as 24 parts-per-million years (ppm-years). *Id.* at 4. Plaintiff's expert, Dr. Gore, a clinical oncologist, explained that the relative risk of leukemia was a hundred times greater in workers who had more than 16 ppm-years, so the painter had, at a minimum, been exposed "to a very toxic and dangerous level." *Id.* at 5. Dr. Gore had assessed several hundred AML patients in order to identify causal factors. He further explained that the identification of causal factors is significant because a patient whose leukemia was caused by exposure to a known chemical is treated differently from one whose leukemia arose from an unknown cause. *Id.* Dr. Gore also referred to scientific literature that observed leukemogenic effects of benzene at exposures well below those experienced by the painter. *Id.* at 7. Dr. Gore concluded that the painter's exposure to benzene was a significant cause of the painter's AML. *Id.* In addition to his specific testimony supporting a threshold well below the 24 ppm-years to which the painter had been exposed, Dr. Gore also testified that there was "no threshold risk of safe exposure to benzene." *Id.* It was this last portion of Dr. Gore's testimony on which the trial court seized and, on that basis, found the entirety of Dr. Gore's opinion to be scientifically unreliable. *Id.* at 8.

The court of appeals overturned the trial court's ruling. The court found that even though it may be true that no one is sure whether there is a floor for risk in benzene cases, "Dr. Gore focused specifically on the amount of benzene to which [the painter] had been exposed and related this amount to the scientific literature," and Dr. Gore also identified a level of benzene exposure that had been proven to be toxic. *Id.* at 12. The fact that Dr. Gore collaterally observed

that any amount of benzene exposure could damage the DNA in a human cell should not have disqualified his testimony. *Id.* Furthermore, according to the court, “Dr. Gore considered which alternative causes should be ruled in, and which could be ruled out,” and “thoroughly addressed the possibility of alternative causes.” *Id.* at 15-16. In short, Dr. Gore’s testimony did not suffer from the deficiencies the trial court attributed to it, i.e., it was not Dr. Gore’s opinion that “the amount of benzene exposure is irrelevant,” nor had Dr. Gore failed to rule out other causes. *Id.*

Unlike Dr. Gore in *Schultz*, Dr. Brodtkin has not focused specifically on the amount of asbestos to which Mr. Quirin may have been exposed when he allegedly smoked original Kent cigarettes. Dr. Brodtkin has not related Mr. Quirin’s alleged exposure from smoking original Kent to scientific literature, nor has he identified a level of asbestos that has been proven to be toxic. And he also failed to consider which exposures should be ruled in and which should be ruled out. In short, Dr. Brodtkin’s testimony suffers from all the deficiencies that Dr. Gore’s testimony did not. Dr. Brodtkin’s conclusory opinion that Mr. Quirin’s alleged smoking of five to seven original Kent filter cigarettes per day between 1954 and 1956 is a “significant exposure” that was a substantial factor in causing Mr. Quirin’s mesothelioma is biologically and scientifically unsound, and it should be excluded.

E. **Dr. Brodtkin’s Kent-Cigarette Causation Opinion Directly Contradicts the Illinois Supreme Court’s Decision in *Thacker*.**

In *Thacker v. UNR Industries, Inc.*, 151 Ill. 2d 343, 603 N.E.2d 449 (1992), the Supreme Court of Illinois held that in a cause of action for negligence or strict product liability arising from alleged exposure to asbestos, a plaintiff must prove that the defendant’s asbestos was the cause in fact of the injury. *Id.* at 354, 603 N.E.2d at 455. To prove causation in fact, the plaintiff must prove medical causation, i.e., that exposure to asbestos caused the injury, and that it was the defendant’s asbestos-containing product that caused the injury. *Id.* The question of when there

is sufficient evidence to take the case to the jury depends upon “the frequency of the use of the product and the regularity or extent of the plaintiff’s employment in proximity thereto.” *Id.* at 358, 603 N.E.2d at 457. Further, “a plaintiff must prove more than a casual or minimum contact with the product.” *Id.* at 359, 603 N.E.2d at 457. And such evidence cannot be based on mere conjecture or speculation. *Id.* at 343, 603 N.E.2d at 455. This test is often referred to as the “frequency, regularity and proximity” or “substantial-factor” test. *Zickuhr v. Ericsson, Inc.*, 2011 IL App (1st) 103430, 962 N.E.2d 974, 983 (2011).

Thacker does not stand for the proposition that once a plaintiff meets the frequency, regularity and proximity test, he or she thereby establishes legal causation. *Nolan v. Weil-McLain*, 233 Ill. 2d 416, 433, 910 N.E.2d 549, 558 (2009). Indeed, “*Thacker* created no such presumption.” *Id.* Rather, “*Thacker* reaffirmed the axiomatic rule that a plaintiff alleging personal injury in any tort action -- including asbestos cases -- must adduce sufficient proof that the defendant caused the injury.” *Id.* at 434, 910 N.E.2d at 558. Further, *Thacker* rejected the argument that so long as there is *any* evidence that the injured party “was exposed to a defendant’s asbestos-containing product, there is sufficient evidence of cause in fact to allow the issue of legal causation to go to the jury.” *Id.*, 910 N.E.2d at 559 (Court’s emphasis). Such an approach “is contrary to the concept of substantial causation, as without the minimum of proof required to establish frequency, regularity and proximity of exposure, a reasonable inference of substantial causation in fact cannot be made.” *Id.*

The question of whether the alleged conduct meets these tests is usually a question for the trier of fact, “but if a contrary decision is clearly evident from a review of all the evidence, Illinois courts rule in favor of the defendant as a matter of law.” *Thacker*, 151 Ill. 2d at 355, 603 N.E.2d at 455. As the Court explained,

Put in a slightly different way, Illinois courts have as a matter of law, refused to allow a plaintiff to take the causation question to the jury when there is insufficient evidence for the jury to reasonably find that the defendant's conduct was a cause of the plaintiff's harm or injury.

Id.

Although Illinois courts have not required a finding of the exact quantity of asbestos to which an injured party was exposed, they have nonetheless required that plaintiffs in asbestos cases show "the frequency of the use of the product and the regularity or extent of the plaintiff's employment in proximity thereto." *Zickuhr*, 2011 IL App (1st) 103430, 962 N.E.2d at 987. In *Zickuhr*, the decedent alleged 29 years of occupational exposure to asbestos-containing wire and cable. *Id.* In *Nolan*, the decedent performed millwright work, plumbing, pipefitting, and boiler installation and repair for 38 years. *Nolan*, 233 Ill.2d at 421, 910 N.E.2d at 552. In *Thacker*, the decedent worked at Union Asbestos and Rubber Company from 1954 to 1962, most of that time in the pipecovering department. *Thacker*, 151 Ill. 2d at 349, 603 N.E.2d at 452. If Dr. Brodtkin's opinion is to be of any value to the jury, he ought to be able to explain why smoking approximately five to seven original Kent cigarettes per day for possibly up to two years would generate an exposure that reasonably compares to the frequency, regularity and proximity of the exposures at issue in *Zickuhr*, *Nolan* and *Thacker*. But Dr. Brodtkin has no such explanation.

The only support for Dr. Brodtkin's Kent-specific causation opinion is Dr. Brodtkin's conclusion. The fact that original Kent cigarettes had a filter containing crocidolite asbestos is neither disputed nor proof that such asbestos fibers, if any, that may have been released through the act of smoking the cigarettes were sufficient to cause Mr. Quirin's mesothelioma. Plaintiff may reference Dr. Brodtkin's reliance on "studies" by Drs. James Millette and William Longo, but this work, all of which was undertaken for purposes of litigation with only one report by

Longo published,⁶ shows only that asbestos fibers may be released from the decades-old original Kent cigarettes on which Drs. Millette and Longo experimented. None of these “studies” attempts to prove that the observed amount of release, if any, was sufficient to cause disease. To that extent, moreover, both Dr. Millette and Dr. Longo observed significant variability in the amount of fiber release from one test to the next, with Dr. Millette even finding *zero* asbestos fiber release in at least half of the samples he analyzed.

Furthermore, neither Millette nor Longo identified a minimum dose of asbestos exposure sufficient to cause mesothelioma, and neither has shown or can show that smoking approximately five to seven original Kent cigarettes per day for up to two years in the 1950s would have generated an exposure to asbestos with sufficient frequency, regularity and proximity to be a substantial factor in causing Mr. Quirin’s mesothelioma. Indeed, neither Dr. Millette nor Dr. Longo is a medical doctor, and neither purports to offer opinions on causation.

Moreover, Dr. Brodtkin cites no epidemiological studies, peer-reviewed or otherwise, to support his opinion, and Dr. Brodtkin admitted that he does not know of any such studies that have ever been done. *See* Ex. E, Brodtkin Dep. at 222:10-16. Rather, Dr. Brodtkin blindly accepts Dr. Millette’s and Dr. Longo’s purported observations of fiber release, and he then demonstrates the speculative nature of his causal connection by his inability to say “one way or the other” that the fiber release Millette and Longo purportedly observed in experiments on 40- and 50-year-old cigarettes is enough to have caused Mr. Quirin’s mesothelioma. He can only say that Kent filter cigarettes were “a component part of [Mr. Quirin’s] exposure,” which was

⁶ *See* Lorillard and H&V’s Motion in Limine to Exclude the Testimony and Opinions of Dr. James Millette Regarding Certain Reports and/or Analysis Involving Original Kent Cigarettes and Motion in Limine to Exclude the Testimony and Opinions of Dr. William Longo and Any Evidence of Experiments Conducted by Dr. Longo and Materials Analytical Services.

“not as great as the cumulative exposure [Mr. Quirin] had including all occupational exposures.” *Id.* at 239:18-22.

Even if Dr. Brodtkin cannot say Mr. Quirin’s alleged exposure to asbestos from smoking original Kent cigarettes was sufficient by itself to cause his mesothelioma, Dr. Brodtkin *can* say that if Mr. Quirin *had not* smoked original Kent with the asbestos-containing filter, his occupational exposure *alone* would have been sufficient to cause his mesothelioma. *Id.* at 235:25-236:14. And this exposes the inherent problem with Dr. Brodtkin’s causation opinions. Dr. Brodtkin clearly has some idea about what constitutes an exposure sufficient to cause mesothelioma. He firmly believes that mesothelioma is a dose-responsive disease. As he testified, “it’s the dose of asbestos that’s important to my consideration in terms of, you know, the intensity and the duration qualitatively in the occupational and environmental history.” *Id.* at 44:20-23. It is just that Dr. Brodtkin has no idea of what constitutes a sufficient dose, intensity or duration.

Dr. Brodtkin says he rejects the “every exposure” theory of causation, and he similarly believes that “individuals in the general population have certainly indicated a body burden of asbestos associated with individuals breathing ambient air, and there’s no evidence that those individuals are at increased risk for mesothelioma either.” *Id.* at 168:1-16. So clearly, Dr. Brodtkin understands that the poison is in the dose. Yet, Dr. Brodtkin not only fails to opine, he declines to opine in any way about the dose Mr. Quirin allegedly experienced as a result of exposure to the asbestos-containing filter in original Kent cigarettes. *Id.* at 89:5-16; 229:1-14. All he does is conclude that it was a “significant cumulative dose,” whatever that may be. *Id.* at 228:11-25. However, exposure to a product cannot possibly be “frequent, regular and proximate” for medical causation purposes if it is insufficient to cause disease on its own and the

disease would have occurred without it. *See Nolan*, 233 Ill.2d at 439, 910 N.E.2d at 561 (citing *Thacker* to observe that “it is possible to exclude particular exposures as substantial contributing causes of a plaintiff’s injury in asbestos cases”).

Dr. Brodkin’s causation testimony as it relates to original Kent filter cigarettes will not be of any assistance to the jury other than to tell the jury that he does not know “one way or the other” whether Mr. Quirin’s alleged original Kent cigarette smoking was sufficient to cause his injury. In that scenario, only one result is possible -- Plaintiff cannot prove cause in fact in her claims against Lorillard and H&V.

Valid expert opinion testimony may be used to inform the ultimate question of asbestos causation (namely, whether an alleged asbestos exposure caused a plaintiff’s illness). However, this fact does not mean that an expert can state the conclusion that a given asbestos exposure was “a substantial factor” unless it can be shown that there is some expert basis upon which he is drawing that conclusion, and that the conclusion is “sufficiently outside the common experience” of the jury. In other words, an expert’s ultimate conclusion that a particular exposure was “a substantial factor” should not be based simply on his personal lay opinions or value judgments.

Thus, Dr. Brodkin should not be able to parrot the conclusion that an exposure was “a substantial factor” without first establishing that those terms are defined in his field and, if so, explaining those definitions to the jury. Without that foundation, Dr. Brodkin’s opinions cannot be said to “help the trier of fact to understand the evidence or to determine a fact in issue” because the opinions are not “based on sufficient facts or data” and are not “the product of reliable principles and methods.” Fed. R. Evid. 702. Such testimony could only have the improper effect of encouraging jurors to adopt blindly the expert’s ultimate conclusion without attention to the standards set forth in *Thacker* and *Nolan*.

IV. CONCLUSION

Nothing in Dr. Brodtkin's testimony provides scientific support that Mr. Quirin's exposure to asbestos from smoking approximately five to seven original Kent filter cigarettes per day for up to two years in the 1950s caused Mr. Quirin's mesothelioma. Dr. Brodtkin's Kent-specific causation opinion is speculation and conjecture, and it should be excluded. Furthermore, since Dr. Brodtkin is unable to give his medical opinion that Mr. Quirin's alleged exposure to asbestos from smoking original Kent cigarettes was sufficient to cause his mesothelioma, Plaintiff should not be permitted to proceed further with claims against Lorillard and H&V.

Respectfully submitted,

LORILLARD TOBACCO COMPANY &
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Certificate Of Service

I hereby certify that on August 1 2013, I electronically filed the foregoing pleading with the Clerk of Court using the CM/ECF system which will send notification of such filing to all counsel of record.

/s/ Kevin C. McGinley